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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,795	10/03/2003	Anthony Bonnet	FR-AM 1892	3900

31684 7590 06/15/2006

ARKEMA INC.
PATENT DEPARTMENT - 26TH FLOOR
2000 MARKET STREET
PHILADELPHIA, PA 19103-3222

EXAMINER

ASINOVSKY, OLGA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/678,795	BONNET ET AL.	
	Examiner	Art Unit	
	Olga Asinovsky	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/17/05 & 10/3/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The cancellation claims 15 and 16 is noted.

Claim Rejections - 35 USC § 112

1. Claims 6, 7, 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claim 6 recites the limitation "core/shell type" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 6 is depending on claim 1. There is no core/shell structure for an acrylic elastomer in claim 1. Applicants fail to provide the essential guidance that the core/shell type is.
3. Claim 7 claims a peelable protective layer deposited on the layer (A) side. There is no definition for a peelable protective layer. Claim 7 is indefinite.
4. Claim 13 recites the limitation "a layer consisting essentially of functionalized PMMA" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim 13. Claim 13 is depending on claim 1. Claim 1 has a claim language "comprising" an adhesive layer and a layer (A). Claim language "consisting essentially of functionalized PMMA" for a layer (presumably it is an adhesive layer) has no support in claim 1.
5. The term "Use" should be remove from claim 14, line 1. Claim 14 recites the limitation "a layer consisting essentially of functionalized PMMA and an acrylic elastomer" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim 14. Claim 14 is depending on claim 1. Claim language in claim 1 is "comprises."

The limitation for a layer "consisting essentially of functionalized PMMA and an acrylic elastomer" (presumably this layer is an adhesive layer) has no support in claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al U.S. Patent 6,479,161 in view of Kappler et al U.S. Patent 4,990,406 or Ohmori et al U.S. Patent 4,581,412.

Araki discloses a fluorine-containing adhesive comprising a fluorine-containing ethylenic polymer (A) that is prepared by copolymerizing: (a) of at least one of fluorine-containing ethylenic monomers having at least one functional group selected from the group consisting of carboxyl or a carboxyl salt group and (b) of at least one of fluorine-containing ethylenic monomers having no-functional group that is being copolymerizable with the component (a), column 4, lines 28-43. The fluorine-containing adhesive can be applied to surfaces of synthetic resin such as polyester, polyamide, acrylic polymer, column 20, lines 50-67 and column 21, lines 41. The fluorine-containing adhesive having carboxyl functional group has excellent adhesive properties to the surfaces of various materials to which adhesion has been difficult or impossible, column 4, lines 53-67. The fluorine-containing adhesive can be in either form of resin

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and elastomer. The fluorine-containing adhesive can be blended with a synthetic rubber to make it possible to enhance mechanical properties, column 12, lines 17-23. Thus Araki is teaching that the elastomeric property of the adhesive layer can be obtained, for the present claims 4-5. The form of the adhesive can be optionally selected depending on purpose and application of adhering, and purpose and application of a laminated article, column 9, lines 19-23. An ultraviolet ray adsorbent can be added, column 12, line 17, for the present claims 4-5. The fluorine-containing adhesive having carboxyl functional group can be adhered or laminated to other organic polymer, column 12, lines 30-49 to form a laminated film of two layers or a laminated article of three layers, column 13, lines 55-65; column 14, lines 18-67; column 15, lines 1-67. The polymer substrate layer can include PVDF and vinylidene fluoride copolymers, for the present claim 1.

The difference between the present claims and Araki invention is the requirement in the present claims of a formulation of an adhesive layer comprises a functional polymethyl methacrylate (PMMA) in the amount of 10 to 100 parts. The phrase "functionalized polymethyl methacrylate" is a PMMA having any functional group.

Kappler discloses a composition for lining or coating surfaces, comprising at least one fluoro terpolymer and at least one acrylic resin. The expression "acrylic resin" may include a thermoplastic acrylic resin or a thermosetting acrylic resin obtained from 60 wt% of methyl methacrylate, 18 wt% of hydroxyethyl methacrylate and 2 wt% of methacrylic acid, and 20wt% of butyl acrylate, column 2, lines 45-68 and column 3, lines

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1-15. The composition can be used for coating or lining onto various supports or substrates, column 4, lines 21-26.

Ohmori discloses a fluoro-resin coating composition. The coating composition comprises a fluorine-containing copolymer and an acrylic resin. The "acrylic resin" can be produced by copolymerization of methyl methacrylate and other comonomers such as hydroxyethyl methacrylate, glycidyl methacrylate, (meth)acrylic acid, column 4, lines 46-68. The coating composition can be applied directly to plastic materials, column 6, lines 25-31.

Kappler and Ohmori are teaching that fluoropolymer alone has poor adhesion to thermoplastic substrates. The blend of fluoropolymer with acrylic polymer having acid group exhibits good compatibility and good adhesion to a substrate polymer.

It would have been obvious to one of ordinary skill in the art to modify the fluorine-containing adhesive composition in Araki invention by employing a functionalized acrylic resin as disclosed by Kappler or Ohmori invention for the purpose to improve mechanical properties of the fluorine-containing adhesive for producing a multi-layer co-extrusion molding in Araki invention, because Araki is teaching that a carboxyl functional group is a benefit to give excellent adhesive force directly to surfaces of various materials, column 4, lines 55-61.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References have been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



June 07, 2006



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700